ARTICLE IN THE SPECIAL SECTION

Cyberfield: Theory, Methodology, and Practice

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ABSTRACT

The study of digital identity began in the late 1980s with the rise of computers, the Internet, video games, and online communication tools. Over the past 35 years, digital anthropology and ethnography have provided valuable insights into virtual interactions. However, due to rapid technological advancements, researchers must continually update their methodologies to stay aligned with new trends in online communication. This study seeks to explore and systematize theories, methodologies, and practices related to the cyberfield, offering a comprehensive understanding of current research in digital ethnography. Additionally, it introduces an alternative methodology for analyzing the cyberfield, emphasizing its advantages in capturing the complexities of online spaces. The methodological principles outlined in this article are illustrated through examples from the authors' own study of the ethnic identity of minor Indigenous peoples in Russia in the online environment. Today, virtual spaces offer various research opportunities, including qualitative and quantitative methods, surveys, and database creation, enhancing data collection. Web analysis has simplified fieldwork by reducing the need for physical presence, saving time and resources. However, recent developments suggest that real-world interaction remains crucial. The growing intersection of the "digital" and "physical" fields highlights the importance of integrating both contexts in ethnographic research for a more nuanced understanding of virtual and real-world experiences.

KEYWORDS

virtual ethnicity, cyberfield ethnography, digital ethnography, Internet, Indigenous peoples, ethnicity, identity

Introduction

The study of digital identity began in the late 1980s with the spread of computers, the Internet, video games, and various communication tools: chat rooms, messengers, and online newsletters. Initially, scholars focused on analyzing the Web's potential, exploring how the digital environment could benefit humanity both in the present and future. By the end of the 1990s, analyses of Web interaction became a separate phenomenon in the research discourse. In 1998, Mark Poster introduced the concept of "virtual ethnicity" to describe how real and virtual elements interact in shaping ethnic groups (Poster, 1998). By then, traditional ethnography was a well-established field, rooted in extensive fieldwork, but the rise of digital spaces presented scholars with a new challenge: studying identity in an online environment. Should traditional ethnographic methods be applied to such work? If so, how should they be adapted? For over 25 years, scholars have advanced digital anthropology and ethnography; however, the rapid evolution of online interaction demands that researchers should constantly update their toolkit to keep pace with new trends and communication methods.

A group of researchers from Peter the Great Museum of Anthropology and Ethnography (Kunstkamera) of the Russian Academy of Sciences has been engaged in research in the field of digital ethnography for several years, which resulted in the monograph *Virtual'naia Etnichnost' i Kiberetnografiia* [Virtual Ethnicity and Cyberethnography] (Golovnev et al., 2021). As the digital environment continues to evolve, this study aims to explore changes in the virtual field, examine and systematize existing theories, methodologies, and practices related to the cyberfield, and propose an alternative approach to cyberfield analysis, highlighting its advantages. In doing so, it builds on and contributes to the ongoing discourse on the study of virtual ethnicity.

This study draws heavily on research into the ethnic identity of minor Indigenous peoples of Russia, including other ethnic groups such as the Tatars and Kryashens. The research was conducted through a combination of physical and virtual observation. Building on long-term fieldwork in the territories of these Indigenous peoples, the authors have more recently focused on observing the digitalization of their ethnic culture.

For this study, we prepared a questionnaire to gather feedback from representatives of minor Indigenous peoples on their participation in online research. A total of 93 people participated, with 67% women and 33% men, mostly from the Shapsugs, Nagaybaks, Khanty, Besermyan, Tubalars, Kumandins, and other groups.

The article is divided into three parts. The first part presents research case studies and key directions in online identity studies. The second part outlines our experience

studying virtual ethnicity and introduces methods for both qualitative and quantitative analysis. In the third part, we analyze ethnic community members' feedback on their participation in online research, share our principles for working in digital environments shaped by our experiences with minor Indigenous peoples of Russia, and assess the advantages and disadvantages of the cyberfield.

Field and Cyberfield: Illusions and Dilemmas

In 1993, Gary Alan Fine published the article "Ten Lies of Ethnography: Moral Dilemmas of Field Research," in which he explores ten illusions related to the ethical and technical challenges of ethnographic fieldwork. Fine categorizes them into three types: challenges to the ethnographer's "classical virtues" (sympathy, openness, and honor toward informants), challenges to technical skills (precision, observation, and passiveness), and conventions surrounding the presentation of research results (sincerity, chastity, and impartiality). From Fine's perspective, these illusions are inevitable, as perfection is unattainable, though it is crucial to recognize and understand them so as to avoid taking them for granted (Fine, 1993, pp. 268–269).

Almost 30 years after the publication of Fine's article, digital ethnographer Gabriele de Seta posed a similar question about the "lies" that cyberfield methods are fraught with. In his article "Three Lies of Digital Ethnography," the researcher examines the professional illusions that accompany the work of the digital ethnographer. These three "lies" are conveyed through three archetypal figures: the "networked field-weaver", the "eager participant-lurker", and the "expert fabricator." According to de Seta, these three illusory figures "embody discursive strategies, performative masks, and illusory identities that I regularly confront in my thinking, speaking, and writing about my own research work" (de Seta, 2020, p. 80).

De Seta describes the concept of the networked field-weaver as conducting research within one area of the Internet, which often opens up a wide range of potential interlocutors, unexplored communities, and entirely new categories of data. Under time and funding constraints, such situations of data abundance often involve pruning new information "offshoots," refusing offers of further socialization and withholding information beyond the scope of the research project for the sake of its timely completion (de Seta, 2020, p. 84).

De Seta notes that recent research on the diversity of participation modes in digital media platforms has moved beyond the simple distinction between active participation and lurking. He highlights the need to consider various forms of participation in both online and offline contexts, expanding the concept to include activities like browsing, clicking on links, navigating between platforms, and spending time with users in their daily lives, in addition to observing online activity (de Seta, 2020, p. 86). De Seta argues that beyond the false choice between covert observation and active participation, the question of the form of participation should become one of the central issues of digital ethnography, rather than a purely methodological choice (de Seta, 2020, p. 88).

The third "lie" of digital ethnography relates to representation, which is an inevitable component of the production of any kind of research output. Widespread

agreement on the ethics of digital media research includes informing participants of professional activities when collecting information in online communities, fully anonymizing or pseudonymizing personal data and identity markers, obtaining consent to publish private communications, acknowledging authorship, and more. Proceeding from these principles, de Seta argues that data fabrication is an inherent aspect of the digital ethnographer's work (de Seta, 2020, p. 92). Even if the research is based on extensive material, the resulting report created by the digital ethnographer ends up comprising a rather narrow set of data, often carefully edited, translated, coded, paraphrased, depersonalized, trimmed, selectively blurred, and prepared according to a multitude of ethical, argumentative, and aesthetic authorial decisions (de Seta, 2020, p. 90). In this context, fabrication becomes not just an ethical practice, but a way of utilizing the researcher's agency in the process, first by claiming and then by actively fulfilling their role as editor, interpreter, and, in effect, creator of a story (Markham, 2012, p. 345). Thus, the fabrication of research is inextricably linked to the idea of expertise. By claiming and assuming the role of editor, translator, and creator of compositions of events, identities, and texts, digital ethnographer implicitly establishes competence and awareness in a particular socio-technical context (de Seta, 2020, p. 91). Without diminishing the usefulness of fabrication as a representational strategy, de Seta emphasizes that the figure of the expert fabricator is, in fact, a tempting professional illusion (de Seta, 2020, p. 92).

Similar to G. A. Fine, the researcher concludes that the "networked field-weaver," essentializing one's participation in online communities, and "expert fabrication" are inevitable parts of ethnographic research in digital media (de Seta, 2020, p. 94). De Seta notes that his study is grounded in self-reflection, a technique central to qualitative research that has become almost cliché but remains valuable (p. 93). He ends with a quote from G. A. Fine: "These lies are not lies that we can choose, for the most part, not to tell; they are not claims that we can avoid entirely. We must suffer the reality that they are part of the methodology" (Fine, 1993, p. 290).

Thus, the cyberfield inherits from the ethnographic field a tendency to distortions and illusions, which, according to the above-mentioned authors, are inevitable in all qualitative research.

Methodology of Digital Ethnography

Researchers have varied views on the interactions between the physical world and virtual space. The following summarizes some key approaches and projects in digital ethnography, though it does not cover the full diversity of research methods for digital communities.

In his study of *Second Life*, a multiplayer online world, Tom Boellstorff applies traditional ethnographic methods, including participant observation, focus groups, surveys, and interviews, treating *Second Life* as a legitimate ethnographic field. He does not compare it to reality or consider interactions outside the virtual world (Boellstorff, 2015). Thus, Boellstorff's work mirrors traditional ethnographic research,

using field methods while deliberately isolating the virtual world from its real-world social, technological, and cultural contexts.

Another way was taken by British ethnographer Daniel Miller under his research project *Why We Post*. For ten years, Miller, together with scientists from different countries, had studied the mutual influence of people and the information environment. The aim of the project was to explore the impact of media technologies on everyday life, as well as the role of social networks in the formation of modern relationship practices. Miller and Slater's research in Trinidad in the late 1990s highlighted the need for long-term physical observation to study social media meaningfully (Miller & Slater, 2000, p. 5). To immerse themselves in the culture, project participants spent at least fifteen months in the communities, building contacts with locals (Miller et al., 2016).

According to British researcher Christine Hine, interactive media present both a challenge and a new opportunity for ethnography because they question the very notion of the place of interaction. Cyberspace should not be seen as a space divorced from any connections to "real life" and face-to-face interaction (Hine, 2000, p. 64). Hine argues that online practices must be understood in the context of reality, including social and cultural factors. The goal of studying virtuality is to identify the contexts shaped by the interaction of online and offline environments (Belorussova, 2021, pp. 132–133; Hine, 2000).

One of the long-standing sources of doubt and debate among digital ethnographers is the *application of human research ethics to qualitative studies of mediated interaction* (Abidin & de Seta, 2020, p. 10), which includes the heterogeneous and fluid environment of cyberspace. A. V. Golovnev notes that due to the rapid content updates and information obsolescence in cyberspace, digital ethnographers must adjust to the virtual speed, altering their research methods and perspectives (Golovnev, 2020). This aligns with the idea that the ethical framework of digital ethnography is always evolving, requiring researchers to adapt their guidelines for each cyberfield study while adhering to professional and socio-legal ethics (Gatson, 2012, p. 253).

Abidin and de Seta (2020) define self-reflection as the most widely recommended way to relieve epistemological anxieties, doubts, and ethical dilemmas in the cyberfield (p. 10). A reflexive attitude towards research choices is necessary for "finding practical and defensible balancing points between opposing tensions" (Baym, 2009, p. 173). According to Nancy Baym, a reflexive stance is itself an indicator of professionalism and contributes to a more flexible and detailed design of cyberfield ethnographic research (Baym, 2009).

A key issue in qualitative cyberfield studies is *the focus on textual materials*, such as posts, online articles, and correspondence, at the expense of online observation and interaction (Belorussova, 2021, p. 127). This emphasis on textual data was characteristic of the first wave of virtual space studies, which concentrated on email correspondence and newsgroups rather than online processes themselves (Androutsopoulos, 2008, pp. 1–3). The shift toward using the dense description method came later, largely driven by the further development of digital ethnography methodology.

Another problem inherent in digital ethnographic research is the *issue of participation in fieldwork and data collection*. It seems that the discussion concerning the choice of the format of presence in online communities continues the line of polemics characteristic of traditional ethnographic methodology. G. A. Fine, in his article on the challenges faced by ethnographers in terms of technical capabilities, highlights the following contradiction: on the one hand, the researcher should minimize their influence on the social phenomenon being studied; on the other hand, in order to study the phenomenon effectively, the researcher must become fully immersed in it (Fine, 1993, pp. 280–281).

Passive observation of an online community can address many research questions for digital ethnographers, but it cannot go on indefinitely. Waiting too long to introduce oneself risks making participants feel like they are being "spied" on (Snodgrass, 2014, p. 472). Instead of remaining passive, researchers often opt for active participation in the community. Some even create their own online venues and attract informants (Belorussova, 2021). In other words, researchers have various approaches available when deciding on the format of their presence and interaction in online spaces.

As shown, digital ethnography inherits some discussions and dilemmas, such as those related to field methodology, from traditional ethnography. Others, like the technical aspects of the Internet and rapid information transmission, are unique to the cyberfield. Reflexivity, awareness of the inevitable limitations and "lies" of ethnographic methodology, and the ability to adapt methods to the dynamic and diverse cyberfield environment are key to productive and high-quality research in cyberspace.

Interaction Techniques

Drawing on our own experience of cyberethnographic fieldwork, we identify four main online techniques:
- Direct contact with users;
- Observing the content of groups and personal pages;
- Conducting surveys;
- Quantitative data collection.

Direct Contact With Users

Direct contact is made by asking questions, communicating, and addressing users. It includes any online communication where the researcher is the initiator (or active participant). Communication can occur through face-to-face interaction, inquiries in themed groups and chat rooms, or by reaching out to users on the researcher's personal page. An example of such communication is a survey conducted with a Nagaybak group about their population decline based on the 2020 census results (Figure 1). In January 2023, one of the authors of this study posted the following entry on their page on social media platform VK[1]:

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[1] VK (short for its original name VKontakte) is a Russian online social media and social networking service. https://vk.com VK™ is a trademark of VK.com Ltd.

Last week, the results of the 2020 census on the national composition of Russia's population came in. The number of minor Indigenous peoples seems to be good—the number is decreasing, but not by much, and some of them even increased a little.

But we are sincerely concerned about the Nagaybaks—their number has decreased by a third. Whereas the 2002 census showed 9,600 people, the 2010 census showed 8,148, now there are 5,719.

To be honest, I cannot fully explain such a sharp decline. In this regard, I turn to you, my Nagaybak friends. Why do you think the numbers have fallen so much? Write your answers in the comments or in a private message. As a researcher of the Nagaybaks and just a person who has the warmest feelings for your community, it is important for me to know. Let's think together. (Belorussova, 2023c; Trans. by Svetlana Belorussova, Ksenya Maretina, & Elizaveta Komova—S. B., K. M., & E. K.)

Figure 1

Screenshot of the Address to Users in the Network

Note. Source: Belorussova, 2023b.

On this request, Nagaybaks and their sympathizers left 16 comments on VK and 20 on Odnoklassniki[2], another popular Russian social media platform, with three Nagaybaks expressing their opinions in personal messages. These responses can be broadly categorized into two sets: formal (external) factors and substantive (internal) factors. Overall, the census data did not elicit disappointment so much as reflection. For some, the survey prompted nostalgic memories of childhood and youth, thoughts about their parents and grandparents, and discussions of current issues and potential solutions (Belorussova, 2023a).

Another example of engagement occurred when we discovered that Ivan Georgievich Isaev (1861–1917), Lieutenant-General of the Orenburg Cossack Troops and Governor-General of Vilnius[3], was from the village of Ostrolensky and was likely a Nagaybak. Knowing the Nagaybaks' interest in famous ancestors, we asked users on social media for any information about Isaev. The post generated significant response, with 65 comments in Odnoklassniki and 11 in VK, sparking an online discussion. Subsequently, some users contacted the researcher by phone to share their thoughts on Isaev, thus moving the discussion from an online to a "live" format. In the course of the discussion, commentators reported on the likelihood of their kinship and even "competed" for bloodlines (the Nagaybaks have several Isaev clans). In the end, further Internet research revealed a probable connection between General Isaev and Peter Isaev, a resident of Ostrolensky. Local Nagaybaks appreciated this: "Pyotr Ivanovich! Congratulations on such a noble relative." However, the news about the hero ancestor turned out to be significant for all Nagaybaks, with one of them reacting emotionally:

> When you hear familiar surnames, you feel good in your soul. No matter what they say about the Nagaybaks, I love my people. And it is especially pleasant to hear about the treasures of our people. There are a lot of Nagaybaks that we can be proud of. (Belorussova, 2018; Trans. by S. B., K. M., & E. K.)

The interaction methods described in the examples above help reach users interested in specific topics. These requests were posted on the researcher's personal page, with participants acting as "guests" who were invited to comment. This form of "indirect" interaction encourages freedom of expression and fosters active engagement from interested indigenous users.

Observation of Online Communities: Groups and Personal Pages

We examined the posts of ethnic community representatives on their personal pages and in social network groups. Observations were made without intervening, by following discussions, comments, feedback, and expressions.

In this subsection, we examine an example of direct observation that also illustrates the researcher's role in creating a platform for discussion. Eight years ago, one of the authors posted a video, *Ash Biru u Nagaibakov* [Ash Biru of the Nagaybaks], on their YouTube[4] channel (Belorussova, 2016). Ash Biru, which means

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[2] Odnoklassniki is a Russian social network owned by VK. https://ok.ru

[3] Vilna, in fact, a Russian name dating to the Russian Empire was Вильна (Vilna), although Вильнюс (Vilnius) is now used

[4] YouTube™ is a trademark of Google Inc., registered in the U.S. and other countries.

"to give soup," "to give food," or "to give dinner," is a memorial rite held in honor of a deceased relative. It involves the ritual slaughter of a cow and a communal meal. As the most esteemed rite among the Nagaybaks, it is typically closed to outsiders, with only relatives of the deceased participating.

The video was also shared on the author's personal page to make it accessible to a wider audience, regardless of their familiarity with Nagaybak culture. Over the past eight years, it has been viewed 47,000 times on YouTube and 22,000 times on Odnoklassniki. User reactions suggest that it attracted viewers interested in ethnic identity. More than 350 comments were posted, primarily by Tatar users, but also by Kazakh and Nogai viewers. Discussion was less active among Kyrgyz, Bashkir, Turkish, Uzbek, Russian, and Kryashen users. Some Kazakh, Tatar, Kyrgyz, Uzbek, and Turkish commenters wrote in their native languages (Figure 2).

Figure 2

Comments of Users to the Video Ash Biru of the Nagaibaks
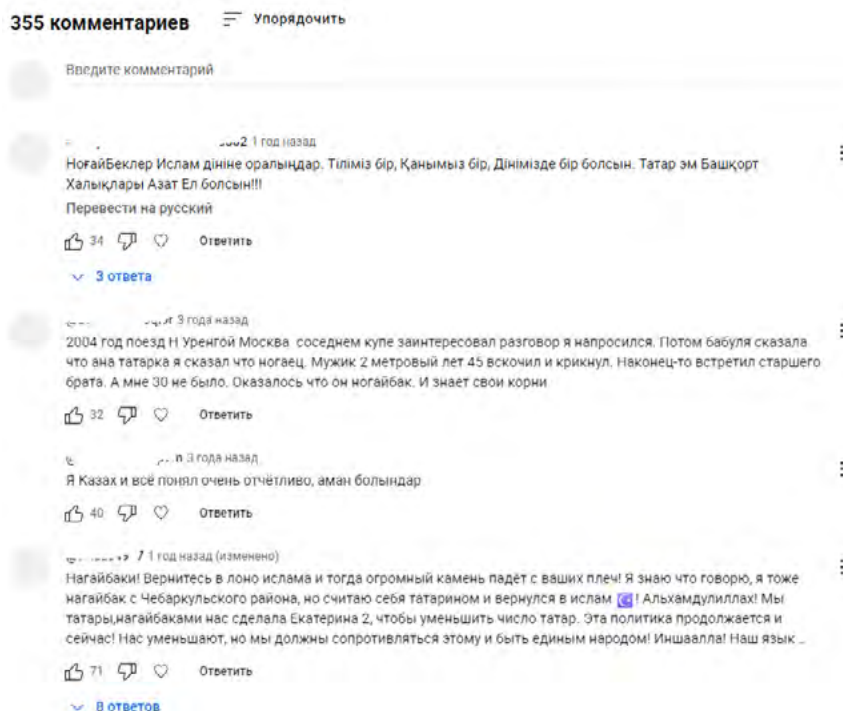
Note. Source: Belorussova, 2016.

Discussing Nagaybak rituals often meant sharing personal stories, as many users related their identity to their own ethnic experiences. A large number of comments revealed the user's nationality, language, or religious affiliation. For example, commenters wrote: "I am Kazakh, I understood their language without translation," "Kyrgyz people also call it ash," and "I had never heard of Nogaybaks. I'm a Nogai myself" (Trans. by S. B., K. M., & E. K.).

The religious syncretism in the Ash Biru ritual sparked mixed reactions, with comments such as: "You are Muslims by language, how come you are baptized?" and "Everything is fine, but I don't understand why there's an icon" (Trans. by S. B., K. M., & E. K.).

Muslim users took the opportunity to offer guidance to the Nagaybaks on the "true" path of Islam: "Nagaybaks, stop it with Orthodoxy. You are Turks both in customs and way of life"; "Accept Islam ... Don't confuse yourselves and others ... Don't you have elders to guide you on the right path?" (Trans. by S. B., K. M., & E. K.).

Some users saw the Ash Biru ritual as blasphemous and a distortion of religion, with comments like: "They are not Muslims and have no right to mention Allah if they are baptized and keep an icon in the house"; "Nonsense! If they pray in Russian, let them do everything in Russian!"; and "Enough. You are Muslims." The Nagaybaks were called "lost," "kafirs" (those who do not recognize Allah), and "mankurts" (those deprived of memory), with some comments even threatening retaliation: "Traitors of your ancestors, your future is cursed" (Trans. by S. B., K. M., & E. K.).

The Nagaybaks themselves rarely participated in the discussion but were active observers. Some left supportive comments such as: "Hello Chebarkulans!" or "I am from Kassel, Nagaybak district," and "We, Nagaybaks of Nagaybak district, also have such traditions" (Trans. by S. B., K. M., & E. K.). A few defended their identity: for example, one user responded to the comment, "It's a pity, the Nagaybak people have dissolved into the Russian ethnos," with: "Nobody has dissolved. We live separately. We live in our own way." In response to the suggestion, "soon they will disappear, dissolve, and become Russians," a Nagaybak user replied: "We will not disappear anywhere, we take care of our small people, we take care of our customs!" (Belorussova, 2023c; Trans. by S. B., K. M., & E. K.).

In general, Nagaybaks preferred not to actively discuss the video of the rite. Despite high viewing numbers on Odnoklassniki (where the main audience is Nagaybak), the video received fewer than ten comments in six years. However, the comments that were posted reflect how external users view Nagaybak culture. The silence and limited participation from community members also serve as a response, offering insight into contemporary ethnic culture.

Additionally, this example shows the researcher's indirect influence on attitudes toward the community. While not actively participating in the discussion, the author created a "field" that shaped the discourse around it.

Conducting Surveys

Our research team conducted online questionnaires, including mass surveys across several ethnic groups, e.g., "Korennye Malochislennye Narody i Internet" [Minor Indigenous Peoples and the Internet] and surveys for specific communities, e.g., "Anketa Dlia Besermian" [Questionnaire for Besermyans] in 2023. Some focused on specific topics within a community (Belorussova et al., 2020).

We kept the questions functional, simple, and user-friendly, using both closed questions (with predefined answers) and open questions (for personal responses). At the end, we often asked an open-ended, reflective question, such as, "Do you agree

that today's online activity reflects the real existence of an ethnic group? Why?" to encourage discussion of the Internet's role in ethnic community life.

The number of responses varied from dozens to several hundred, depending on the survey's scope, user interest, and the activity of distributors (Figure 3).

Figure 3

Description of the "Questionnaire for Besermyans"
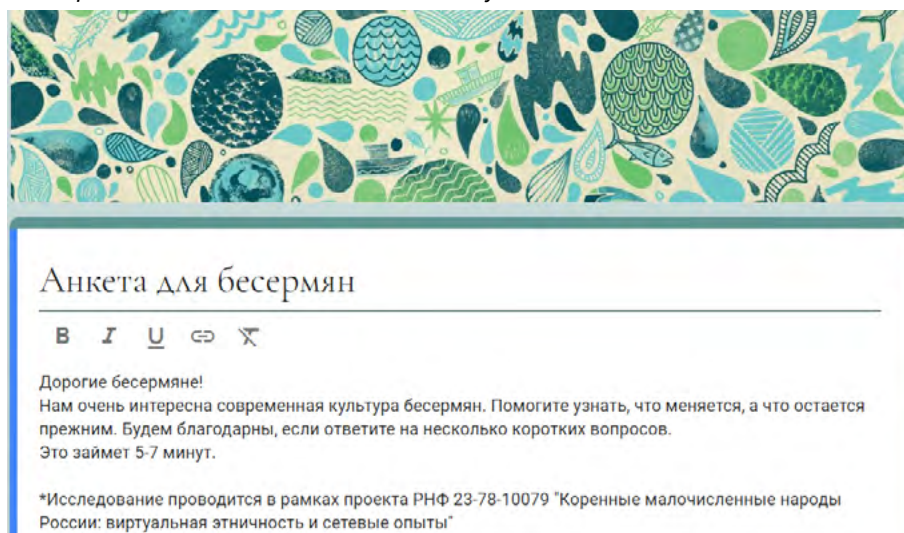
Note. Source: Belorussova, 2023b.

The questionnaire distribution strategy involved several key steps: engaging with moderators of selected online communities, mass mailing to group subscribers, and reaching out to personal acquaintances from the researched ethnic groups. Users were generally interested in the questionnaires, and even with this somewhat closed feedback method, many expressed strong emotions about the process.

Moderators of online communities were among the first to express emotions: most of them published questionnaires and thanked the authors for their labor and attention to their people: "Good afternoon! I published [questionnaire]. Thank you for your interest!" (Trans. by S. B., K. M., & E. K.). Since moderators control the content in their groups, we encountered both acceptance and refusals to publish the survey: "Good afternoon, we do not publish such information. We apologize!" (Trans. by S. B., K. M., & E. K.). Some moderators were creative in sharing the surveys, such as one Seto community post that included a photo of Setos along with the survey invitation.

In addition to moderators, representatives of the surveyed communities also provided feedback. Many were thankful for the surveys: "Hello! I completed the survey. Good luck to you!" and "I want to say THANK YOU for the questionnaire." However, some expressed contrary views: "I don't have time for this [survey]," "Explain in detail why this [survey] is needed and who benefits," and "The word 'minor' in your phrase doesn't add value. Remove it." Others offered suggestions for improving the

questionnaire design: "Good afternoon! For the last question, it would be better to allow multiple answers" (Trans. by S. B., K. M., & E. K.).

Our open-ended questionnaires, which did not contain mandatory questions, allowed us to identify topics of greatest and least interest for ethnic group representatives. The question, "What famous bloggers or representatives of your culture can you name?" was the most challenging for participants from minor Indigenous groups; only 256 out of 325 answered it. Even those who answered had difficulty defining ethnoblogging, as some mentioned activists from the physical rather than the virtual space, or listed TV channels and cultural institutions, which points to the fact that ethnic blogging is still in its early stages of development and not yet familiar to all users.

The question, "Do you use hashtags to represent your ethnic culture? If yes, which ones?" was answered by 300 participants. About 24.5% of respondents from minor Indigenous groups reported using hashtags, while others acknowledged not using them but viewed the idea as a good way to enhance their posts (Belorussova, 2022; Belorussova & Khokholkova, 2023, pp. 173–174). While open questions pose more challenges than closed ones, we strive to maintain a balance between the two in our research.

Quantitative Data Collection

We collected quantitative data from social network groups and used specialized software, including Python code, for analysis and presentation. Google resources (Spreadsheets, Drive, Colaboratory) helped us organize, format, and present data in tabular form. The VK API, in particular API for Python programs, enabled us to access data from VK. The Pandas library provided data structures for manipulating tables, while Pymorphy allowed morphological analysis. Tableau software was used for in-depth data analysis, helping us visually structure the results. Additionally, we displayed analysis results on maps using QGIS 3.28.8.

To date, we have collected and analyzed materials from VK groups of minor Indigenous peoples on the following topics:
1. General information: dynamics of group creation by year, functionality of groups (active and inactive groups), classification by group organization, classification by internal content.
2. Users: gender and age distribution of subscribers and moderators, number of unique subscribers, geography of subscribers.
3. Language: use of native and non-native language in comments, analyzing frequently used words.

We view quantitative data analysis as promising for the research and plan to expand it by covering more themes, exploring other social networks, and involving additional ethnic groups. Some results are unique in studying the contemporary ethnicity of minor Indigenous peoples and are most effective when combined with qualitative methods.

The following is an analysis of the most frequently used Russian words in comments in the VK groups of Votian, Nagaybaks, and Besermyans. Representatives of Votian groups more often use the words "язык" [iazyk] meaning "language," "народ" [narod] meaning "people," "водский" [vodskii] meaning "Votian," "год" [god]

meaning "year," "деревня" [derevnia] meaning "village," "водь" [vod'] meaning "Vod." In Besermyan groups, "молодец" [molodets] meaning "well done," "день" [den'] meaning "day," "рождение" [rozhdenie] meaning "birth," "здоровье" [zdorov'e] meaning "health," "спасибо" [spasibo] meaning "thank you," "поздравлять" [pozdravliat'] meaning "congratulate," "успех" [uspekh] meaning "success," "счастье" [schast'e] menaing "happiness" are mostly used. In the groups of Nagaybaks, the most common words in the comments are "спасибо" [spasibo] meaning "thank you," [molodets] meaning "well done," "соболезнование" [soboleznovanie] meaning "condolence," "здоровье" [zdorov'e] meaning "health," "день" [den'] meaning "day," "память" [pamiat'] meaning "memory," "небесный" [nebesnyi] meaning "heavenly," and "Париж" [Parizh] meaning "Paris." The data suggest that Votians' comments are primarily focused on ethnic identity. The frequent use of terms like "народ" [narod] meaning "people", "водь" [vod'] meaning "Vod," and "водский" [vodskii] meaning "Votian" indicates a sense of distance from the ethnic community, yet also a strong feeling of belonging and concern for its future. The prominence of the word "язык" [iazyk] meaning "language" in the discussions is particularly significant, as preserving the native language is a key issue for many minor Indigenous peoples (Figure 4).

Figure 4

Map of the Most Frequently Used Words Among Nagaybaks, Besermyan, and Votians
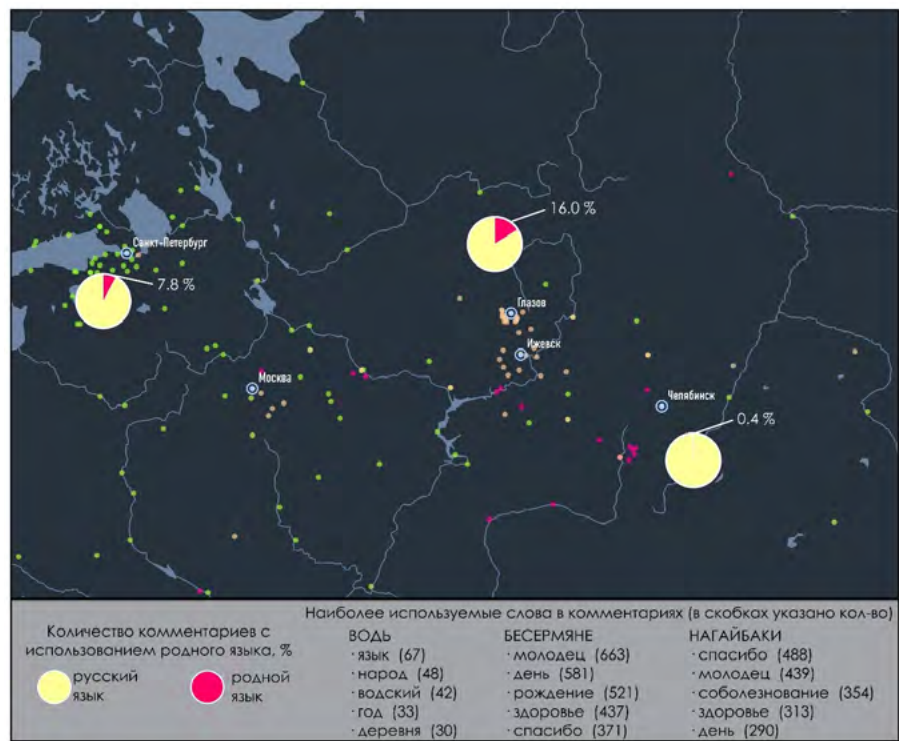
Note. Source: developed by A. A. Siuziumov.

In VK groups of Besermyans, the words used have positive connotations: they are written in the context of congratulations, emotional reactions to favorable news, and posts. This generally reflects the positive attitude of the community, which is currently motivated to implement ethnic projects and support the development of its own culture. In Nagaybak groups, the comments also have a positive character; however, the noun "соболезнование" [condolence], which ranks third among the most used, deserves special attention. This noun was used 354 times, and the corresponding verb "соболезновать" [to condole] was used 212 times, making it the most frequently used lexeme among Nagaybaks. This suggests that in the online community of Nagaybaks, reactions to the death of loved ones are accepted and common, unlike in other online communities, where such events typically remain private. This analysis of the words used among minor Indigenous peoples opens new research frontiers that are inaccessible when analyzing purely qualitative data.

Feedback

We conducted a questionnaire survey among representatives of minor Indigenous peoples to gather their feedback on participating in cyberfield research. The results show an overall positive attitude towards the research, including its online format. Specifically, 83.3% of respondents considered the ethnographers' activities beneficial to their people, while 10.3% did not express a clear opinion, and 6.4% felt it was not useful. When asked about their culture, 93.6% of participants reported feeling a strong sense of belonging to their people. Therefore, it can be concluded that ethnographers, through their work, play a role in fostering ethnic awareness among the community members.

To what extent are representatives of Indigenous peoples oriented towards taking surveys and interviews in online format? To the question "In what form do you prefer to answer questions?" 46.7% said "online only," 45.6% said "online and in live interaction," and 6.7% of participants were willing to talk "live." Thus, today's Indigenous users generally support digital interaction. However, since the survey was conducted online, it mainly attracted users who are comfortable with digital formats.

In response to the question "Do you have expectations from the survey?" users mostly answered in the affirmative. For some, in particular for the Shapsugs, the topic of receiving benefits, observance of the rights and interests of minor Indigenous peoples, was particularly relevant. According to one of the users, the surveys can contribute to "additional benefits as a minor INDIGENOUS people. Will stop infringing on the interests and rights of the people" (Trans. by S. B., K. M., & E. K.). One respondent expressed hope that academic research would change how the people are perceived in everyday consciousness, with a Chukchi representative wishing that they "stop being joked about" (Trans. by S. B., K. M., & E. K.). The Chukchi respondent likely expressed this desire due to the long-standing stereotypes and misconceptions about their ethnic group, particularly the popular jokes in Russia that portray Chukchis as naive or stupid. Many responses reflected a desire to preserve the language, culture, and the ethnic group itself, with respondents hoping for an overall improvement in the community's quality of life.

Users value surveys primarily for the potential to preserve their people's memory and increase their recognition among others. One user expressed a desire for their people to "be better known" (Trans. by S. B., K. M., & E. K.), while a Besermyan representative stated that "the survey will help spread knowledge about Besermyan among others" (Trans. by S. B., K. M., & E. K.). Greater recognizability, in turn, supports other goals. According to the Shapsugs, being more recognized means "they will be mentioned more often as a minor Indigenous people of Russia, and over time, it may become easier for the Shapsugs to exercise their rights as such" (Trans. by S. B., K. M., & E. K.). A comment from a Nagaybak representative combined several perspectives:

> We hardly expect life to improve, but we do not rule it [the possibility of life turning for the better] out. Yet, the fact that we will not be forgotten, that there will be new publications about us and that they will help us to preserve our identity is the most important thing. (Trans. by S. B., K. M., & E. K.)

For the final question, "What advice would you give to researchers conducting surveys?", there was no consensus among respondents. Users wrote both general wishes of good luck, success, research continuation, and more specific ones: "to learn the language," "to make the questions interesting," "to be more attentive," and "to translate more accurately" (Trans. by S. B., K. M., & E. K.). Some expect support for Indigenous peoples: "to do good", "to do my best for the people", and "not to ignore appeals and requests" (Trans. by S. B., K. M., & E. K.). Many wished researchers to increase communication with representatives of ethnic cultures not only in virtual but also in physical space. A Khanty user recommended "to communicate closer with the people themselves, and not to take information from the Internet"; a Shapsug suggested "to get acquainted with our people in person"; a Besermyan respondent advised "not to conduct surveys, but scientific research and expeditions!" (Trans. by S. B., K. M., & E. K.). Thus, direct communication with scholars in real-world conditions proves to be significant for representatives of the Indigenous people.

Reflections on Digital Fieldwork: Principles and Pitfalls

In light of the above, we believe that three key principles should be observed in the preparation of interviews and the design of surveys and questionnaires.

Openness. We believe in allowing users the freedom to respond without pressure. For example, we consider it unacceptable to make all questions in a questionnaire mandatory. We also value refusals, discussions, and criticism, including of our work, as they are crucial to the research process. Any response, whether positive, negative, or neutral, along with any reaction, such as joy, interest, or annoyance, is seen as a valuable part of the ongoing discourse and dialogue with users.

Functionality. When designing a questionnaire or preparing for an interview, we aim to craft questions that maximize results with minimal resources. Each question should allow for a broad and meaningful response from the interviewee. We focus on clarity to avoid ambiguity and ensure precise wording.

Compactness. Both the question and the survey should be meaningful, concise, and to the point. Large amounts of data, excessive text, multiple questions, and "questions within a question" can diminish user interest. Even a highly authoritative researcher cannot achieve the desired results without maintaining brevity in online surveys.

Online research offers clear advantages, such as wide accessibility and the ability to conduct studies from anywhere—whether at work or home—allowing for 24/7 immersion. However, this method also has its drawbacks.

First, experience shows that virtual research is often incomplete without real exposure to the ethnographic environment. For instance, some groups, like the Tubalars, may avoid openly expressing themselves online for various reasons. The Tubalars primarily communicate through closed WhatsApp[5] groups, a fact discovered only through personal contact within their communities. This example shows that physical research can reveal contexts and nuances of virtuality that may not be visible in open online spaces.

Second, the vast amount of data provided by virtuality can be overwhelming and difficult to organize. We agree with Gabriele de Seta's view that an ethnographer acts as a director, shaping the narrative that best reflects the research (de Seta, 2020). For example, in analyzing the video *Ash Biru u Nagaybakov* [Ash Biru of the Nagaybaks], we selected a few comments to highlight the discussion between users and the participation of Nagaybaks themselves, while excluding over 350 other comments due to the article's thematic constraints.

Third, the collection of material, especially quantitative data, captures a moment in time. Once a dataset is established, it can quickly become outdated or "historical" as it reflects a phenomenon evolving within a specific time frame. The rapid evolution of the Internet—marked by the constant appearance of new users, platforms, trends, and modes of communication—further underscores this issue. Additionally, the development of virtual communities is influenced by external factors, including politics, social relations, and technological and economic changes, all of which shape the online environment.

Conclusion

Today's virtual environment offers a broad range of research opportunities, including the application of both qualitative and quantitative methods, conducting surveys, and compiling databases. Network analysis streamlines work, saving effort, time, and financial resources. According to the questionnaires, nearly half of the representatives of minor Indigenous peoples prefer the online format, even without the addition of in-person interaction. Paradoxically, however, one of the main wishes expressed for online research was the inclusion of "live" contact, such as trips, expeditions, and personal interactions. Thus, despite the growing use of cybermedia in ethnographic research, respondents still advocate for studying their culture in person rather than virtually. This sentiment is echoed by scholars as well: observing only the virtual environment makes it difficult to grasp a people's contemporary cultural values, distinctive features,

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[5] WhatsApp is a trademark of WhatsApp Inc., registered in the US and other countries.

and nuances. In recent years, studying virtuality has highlighted the significance of real-world interaction. It becomes clear that the "digital" and "physical" fields are increasingly intertwined, and their combination enables a more comprehensive ethnographic approach, rich in specifics, details, and context.

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